#### PHMC Environmental Management Performance Report – July 2002 Section J – 200 Area Materials and Waste Management



# **Section J**200 Area Materials & Waste Management

## **PROJECT MANAGERS**

G.H. Sanders, RL (509) 376-6888

J.A. Van Vliet, DFSH (509) 373-0402

The 200 Area Materials and Waste Management consists of Project Baseline Summary (PBS) RL-CP02, Work Breakdown Structure (WBS) 3.3.2, except for ERDF.

NOTE: Unless otherwise noted, all information contained herein is as of the end of July 2002.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, and RL) shows that one milestone was completed early.

#### NOTABLE ACCOMPLISHMENTS

Accelerate Readiness to Receive SNF K Basin Sludge — The RL Operational Readiness Review was completed. Informal liaison with ORR Team Lead indicates no pre-start findings in the report.

Mixed Low Level Waste (MLLW) Treatment 3/4 Placed a new non-thermal MLLW treatment contract with ATG. Shipped the first two of seven shipments of debris for treatment under the contract. The contract contains provisions for options that could be exercised next fiscal year. Received informal concurrence from RL to use the balance of the ATG technology demonstration funds for a demonstration of thermal desorption at Perma-Fix. Disposed of contaminated railcar wheel assemblies (41 m<sup>3</sup>) in the mixed waste trench.

**TRU Waste Retrieval** 34 Work continued on developing a mock-up TRU Retrieval trench that will be used to demonstrate retrieval techniques and to train personnel. Construction of the trench is completed and drums are being filled to simulate waste containers.

Liquid Waste Processing 3/4 Processed over 21 million gallons of wastewater through the 200 Area Effluent Treatment Facility (ETF) thus far in FY 2002, providing essential support to a wide variety of site cleanup activities.

Waste Encapsulation and Storage Facility (WESF) Operations 3/4 Completed cleaning of Pool Cells 2 and 6. Replaced Pool Cell 4 recirculation pump. Completed modifications to the 225B-DG-1 diesel generator exhaust stack.

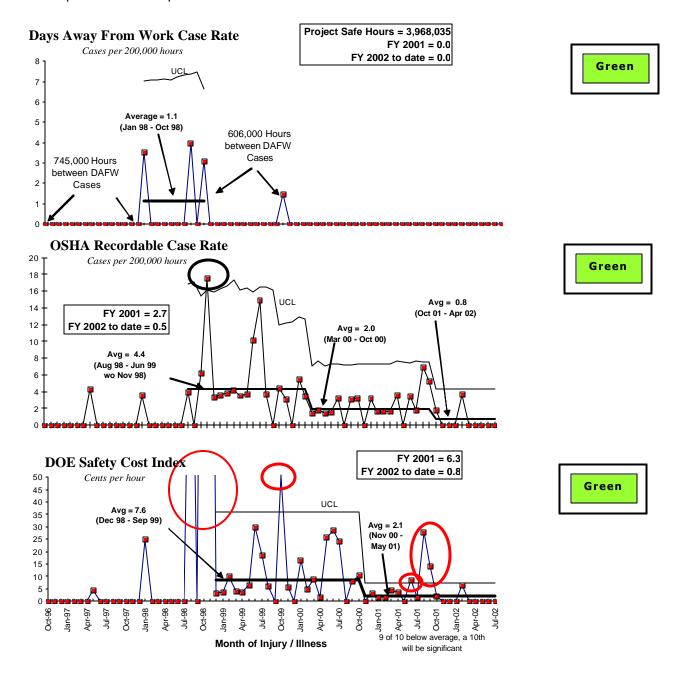
Plutonium Finishing Plant (PFP) Support 3/4 Two shipments totaling 30 drums of Sand, Slag and Crucible (SS&C) waste were received for storage in support of the Residues Project during July 2002.

TRU Program Recertification Audit 3/4 All corrective actions from the June 2002 recertification audit of the Hanford TRU Waste Program have been completed and the associated corrective action reports closed by the Carlsbad Area Field Office.

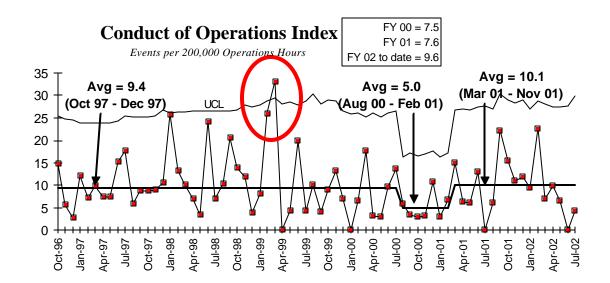
**TRU Waste Shipments** 3/4 Two shipments of TRU waste to WIPP have been approved - one in August and one in September.

#### SAFETY

At the end of July 2002, the project reached 3.9 million safe work hours. At the present staff-hour utilization rate, the project will achieve four million safe hours around or shortly before mid-August. The last days-away injury occurred in October 1999. Fiscal year to date, there have been three OSHA recordable injuries, resulting in a Recordable Incident Rate (IR) of 0.5 at the end of July. The FH annual goal is 0.9. As a result of delays in initial submittal of the project's VPP application and the subsequent loss of momentum, the project is developing and implementing a project-wide VPP communication plan. The plans objective is to help invigorate and enhance employee awareness and understanding of safety and health processes and in particular VPP.



#### CONDUCT OF OPERATIONS



### Breakthroughs / Opportunities for Improvement

#### Breakthroughs / Opportunities for Improvement

No breakthroughs or opportunities for improvement are identified at this time.

### **UPCOMING ACTIVITIES**

Accelerate Readiness to Receive SNF K Basin Sludge — 1) Continue Contractor ORR for movement of Shippingport (PA) fuel, 2) Support activities to receive and store K Basin sludge, and 3) Accelerate T Plant Canyon cell cleanout.

**MLLW Treatment** — Continue shipping waste to ATG under the new non-thermal treatment contract. Continue on-site treatment and direct disposal activities. These include disposal of about 80 m<sup>3</sup> of PFP HEPA filters from the CWC inventory. Establish a contract with Perma-Fix to perform the thermal desorption technology demonstration. Begin shipping waste that requires thermal treatment to Perma-Fix for the demonstration.

**TRU Waste Shipment** — A shipment of 42 TRU drums to WIPP is planned for August 22, 2002. The shipment will contain the first mixed TRU waste to be shipped from Hanford to WIPP. Another shipment of 42 drums is planned for September 16, 2002.

**TRU Waste Retrieval** — Continue preparations for the TRU Retrieval mockup. Place the drums in the trench, backfill, and excavate to demonstrate excavation techniques. Expect to incorporate the Documented Safety Analysis (DSA) comments and resubmit to RL in October 2002. Beginning preparations and staffing up for startup readiness activities to occur late fall, 2002.

**Plutonium Finishing Plant Support** — Continue to support residues processing with shipment of the new Sand, Slag and Crucible waste stream through FY 2003.

**300 Area Cleanup Support** — Continue support to the 324 Fuels Removal Project, 327 Facility Cleanout, and the 300 Area Accelerated Closure Project.

**Waste Encapsulation and Storage Facility (WESF) Operations** — Complete the K-1 filter change and the K-3 duct repair. Dispose of radiologically contaminated waste cask trailer. Support the accelerated capsule disposition initiative.

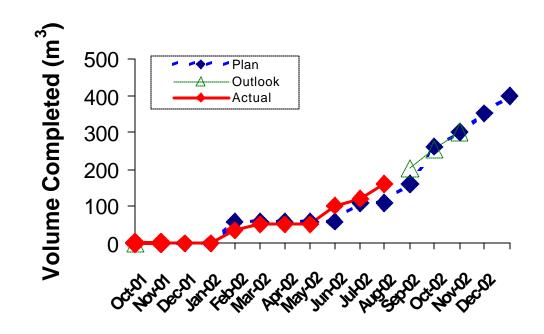
**Liquid Waste Processing** ¾ Continue wastewater processing through the 200 Area ETF. A maintenance outage is planned at the ETF in August 2002. Preparations are underway to start Evaporator campaign 02-1 on September 9, 2002. The second campaign that was planned for FY 2002 was re-scheduled to October by CHG.

# MILESTONE ACHIEVEMENT FH Contract Milestones

Number	Milestone Title	Туре	Due Date	Actual Date	Forecast Date	Status / Comment
M-19-00	Complete Treat/Disp 1,644 CM of CH-LLMW	TPA Enforceable	09-30-02	9-30-02 10-23-00 10-23-0		COMPLETE
M-7-1E	Complete T Plant preparation for storage of K Basins sludge	PI Base	10-30-02		NOV-02	Schedule recovery underway.
M-7-2A	Complete ORR for K Basins Sludge Receipt	PI Base	10-30-02		TBD	Working sludge container issue with SNF.
M-91-12A	Treat 240 Cubic Meters by 12/31/2002	TPA Enforceable	12-31-02		TBD	TPA renegotiation scheduled to be completed in August 2002.
M-91-20	T Plant ready to rec. canister of K Basin floor pit sludge	TPA Enforceable	12-31-02		TBD	Working sludge container issue with SNF.
M-26-05J	Prep Biennial Tritium Treatment Tech Evaluation Report	TPA Enforceable	08-31-03		08-31-03	ON SCHEDULE
M-7-2B	Complete Readiness Assessment K Basins Canister & Fuel Sludge Receipts	PI Base	01-01-04		01-01-04	ON SCHEDULE
M-7-3B	De-Post T Plant Canyon as Airborne Radiation Area	PI Stretch	01-01-04		01-01-04	ON SCHEDULE

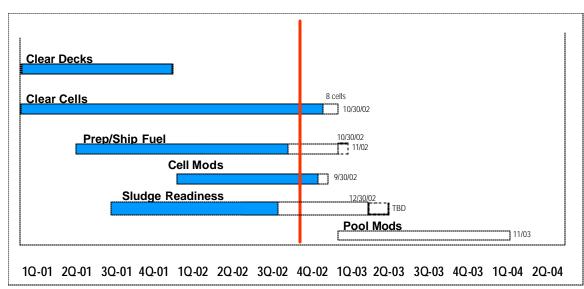
M-91-22	T Plant ready to rec. Canister & fuel wash sludge from K Basin	TPA Enforceable	02-29-04	02-29-04	ON SCHEDULE
M-91-07	Complete W -113 for Post 1970 CH TRU / TRUM Retrieval	TPA Enforceable	09-30-04	TBD	TPA renegotiation scheduled to be completed in August 2002.
M-1-2	Consolidate Sit ewide SNF in 200 A Dry Storage	PI Base	02-28-05	02-28-05	ON SCHEDULE
M-26-05L	Prep Biennial Tritium Treatment Tech Evaluation Report	TPA Enforceable	08-31-05	08-31-05	ON SCHEDULE
M-5-2	Complete Thermal Treatment 600 m <sup>3</sup> MLLW by 12/31/05	PI Base	12-31-05	12-31-05	ON SCHEDULE
M-5-1B	Complete Treatment / Disposal 9820 m <sup>3</sup> of MLLW	PI Stretch	06-30-06	06-30-06	ON SCHEDULE
M-7-3C	Clear Remaining Stored Equipment from T Plant Canyon Deck	PI Stretch	06-30-06	06-30-06	ON SCHEDULE
M-4-1D	Retrieve 15,200 Suspect TRU Waste	PI Stretch	09-30-06	09-30-06	ON SCHEDULE
M-6-1A	Certify 580 m <sup>3</sup> of TRU waste	PI Stretch	09-30-06	09-30-06	ON SCHEDULE
M-6-1B	Complete 68 TRU Waste Shipments to WIPP	PI Stretch	09-30-06	09-30-06	ON SCHEDULE

#### TREAT AND DISPOSE MLLW (FHI-M5)



Note: July production: 40 m<sup>3</sup>. FYTD production: 160 m<sup>3</sup>.

## **ACCELERATE READINESS TO RECEIVE K-BASIN SLUDGE (FHI-M7)**



# FY 2002 SCHEDULE / COST PERFORMANCE – ALL FUND TYPES FY TO DATE STATUS – (\$000)

		FYTD											
			BCWS		BCWP		ACWP		sv	%	cv	%	BAC
PBS CP02 WBS 3.3.2.1	SW Storage & Disposal	\$	9,091		9198	\$	9,347	\$	107	1%	\$ (150)	-2%	\$ 11,529
PBS CP02 WBS 3.3.2.2	MLLW Treatment	\$	1,046	\$	426	\$	423	\$	(620)	-59%	\$ 3	1%	\$ 1,458
PBS CP02 WBS 3.3.2.3	SW Treatment	\$	8,469	\$	7,558	\$	12,128	\$	(911)	-11%	\$ (4,570)	-60%	\$ 10,851
PBS CP02 WBS 3.3.2.4	TRU Program	\$	10,550	\$	10,039	\$	9,349	\$	(511)	-5%	\$ 690	7%	\$ 13,337
PBS CP02 WBS 3.3.2.5	WESF	\$	6,061	\$	6,045	\$	5,527	\$	(16)	0%	\$ 518	9%	\$ 7,633
PBS CP02 WBS 3.3.2.6	200 A LWPF	\$	12,506	\$	12,130	\$	11,439	\$	(376)	-3%	\$ 691	6%	\$ 15,836
PBS CP02 WBS 3.3.2.9	Project Management	\$	15,691	\$	15,432	\$	14,495	\$	(260)	-2%	\$ 937	6%	\$ 19,158
	Total	\$	63.414	\$	60.827	\$	62.707	\$	(2.587)	-4%	\$ (1.881)	-3%	\$ 79.802

#### FY TO DATE SCHEDULE / COST PERFORMANCE

The \$2.6 million unfavorable schedule variance was primarily due to MLLW Treatment production limitations at ATG, Inc. while under Chapter 11. Also, and the T Plant Operational Readiness Review (ORR) for the spent fuel has not been completed due to implementing corrective actions. The \$1.9 million unfavorable cost variance was primarily due to increased costs for the T Plant spent fuel removal ORR preparation and assessment corrective actions. This is offset by the favorable variance from the FY 2001 carryover workscope costing less than planned, contracts not being placed and credit taken for the TRU Program for work completed in FY 2001.

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

## Schedule Variance Analysis: (-\$2.6M)

#### **MLLW Treatment — 3.3.2.2/CP02**

**Description/Cause:** The unfavorable schedule variance is a result of treatment production being limited at ATG while under Chapter 11.

**Impact:** The TPA milestone M-91-12A is unachievable.

**Corrective Action:** Some non-thermal activities have been identified and are proceeding. Formal notification to RL that TPA milestone M-91-12A is unachievable was submitted February 11, 2002.

#### **SW Treatment** — 3.3.2.3/CP02

**Description/Cause:** The unfavorable schedule variance is a result of the T Plant removal ORR not completed and fuel shipments not started.

**Impact:** Completion of fuel removal from T Plant will be delayed.

**Corrective Action:** Complete preparations and initiate fuel removal from T Plant in August.

## Cost Variance Analysis: (-\$1.9 M)

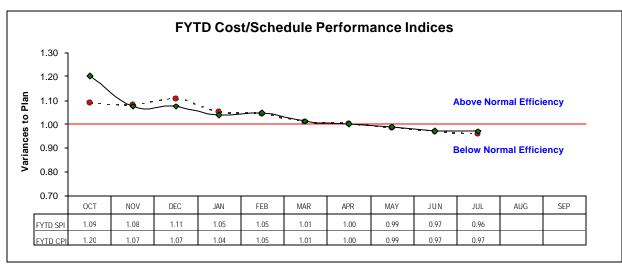
#### **SW Treatment** — 3.3.2.3/CP02

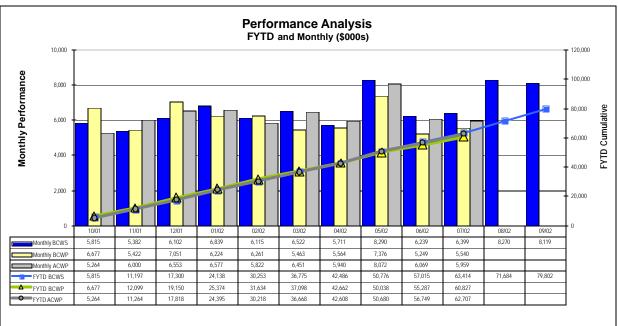
**Description/Cause:** The unfavorable cost variance is due to the increased costs for the T Plant Readiness Assessment preparation and assessment corrective actions, offset by FY 2001 carryover workscope costing less than plan.

**Impact:** T Plant will be over-run at year end.

Corrective Action: Actions have been implemented to resolve cost impacts to the WM Project.

# COST / SCHEDULE PERFORMANCE (MONTHLY AND FYTD)





# FUNDS MANAGEMENT FYTD FUNDS VS. SPENDING FORECAST (\$000)

		H Funds allocation	FYSF	Variance		
3.3.2 Waste Management CP02	\$	81,118	\$ 80,341	\$	777	
Total	\$	81,118	\$ 80,341	\$	777	

NOTES: (1) FH Reallocation reflects an FYSF adjusted for scope deletions, deferrals, and identified savings to address funding shortfalls, additional unplanned scope, and cost increases.

#### **ISSUES**

#### **Technical Issues**

**Issue:** Recovery of T Plant Readiness to move Shippingport Fuel.

**Impact/Status:** The Request for RL Authorization for T Plant to Commence Nuclear Hazard Category 2 Operations was transmitted RL and subsequently approved. T Plant has removed Canyon Fuel Cell 2R cover blocks and started fuel removal activities.

**Corrective Action:** Complete the first fuel shipment by August 23, 2002. (J. Van Vliet/B. V.

Burrow)

**Issue:** Type 1 Sludge Storage Readiness Activity in Jeopardy of Completing on Schedule.

**Impact/Status:** The Quarterly Startup Report, scheduling a Standard Startup Review for Type I sludge storage preparations has been approved by DOE-RL. New data that required further analysis in the Sludge Storage Safety Assessment (SA) was received on 9 July from the SNF Project. Remaining open significant issues include hydrogen generation and safeguards concerns. Current projected delivery date of the SA to RL (October 25) jeopardizes WM Performance Incentive completion dates.

**Corrective Actions:** Coordinate with SNF completion of draft documents that support the T Plant DSA and ensure they are issued to support the T Plant schedule by September 2002 (W. S. Ayers, and W. W. Rutherford). Review current schedule for opportunities to improve ongoing activities related to the DSA (W. S. Ayers, L. W. Roberts, and W. W. Rutherford). Continue WM/SNF coordination (J. A. Van Vliet and R. P. Heck).

#### External Issue/DOE Requests/Regulatory/DOE Issues

Nothing to report at this time.

# **BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS**

BCR No./	Date			mpact	Date			
Level 4 WBS	Originated	Description	Days	Dollars (\$000s)		Status		
FH-02-011	2/28/2002	10CFR830 Phase II compliance		1,700		In rework.		
CP-02-013	6/27/2002	WIPP/WAC Requirements		242		Submitted to RL		
CP-02-014	7/12/2002	WMP Minimum Efficient Operating Level		535		Submitted to RL		